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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/828,288 | 04/21/2004 | Susumu Komiyama | 040356-0511 | 6384 |

22428 7590 09/09/2005

FOLEY AND LARDNER
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

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| EXAMINER |
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WALTERS, JOHN DANIEL

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| ART UNIT | PAPER NUMBER |
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3618

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

JCC

Office Action Summary

Application No.

10/828,288

Applicant(s)

KOMIYAMA ET AL.

Examiner

John D. Walters

Art Unit

3618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☒ Claim(s) 1,6,12 and 16-18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/21/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claims 1 – 18 have been examined.

Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claims 1, 6, 12, 16, 17 and 18 are objected to because of the following informalities:

- The above referenced claims state, "search an operating point". This statement should read --search for an operating point--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1 – 7 and 9 – 18 are rejected under 35 U.S.C. 102(a) as being anticipated by Yamaguchi et al. (2002/0,062,183). Yamaguchi discloses a control system for hybrid vehicles comprising:

- an engine (Fig. 28, item 101);
- a motor (Fig. 28, item 103);
- a generator (Fig. 1, item 2);
- a transmission (Fig. 28, item 104);
- a battery device (Fig. 28, item 112);
- a controller (Fig. 28, item 114);
- a means to calculate a target driving power (page 11, paragraph 173);
- a means to calculate and set a target fuel consumption rate (page 11, paragraph 174 and 175);
- a means to produce an operating point for some combination of said engine, said motor, and said generator (page 12, paragraph 178 & page 4, paragraph 94);
- a means to select a fuel consumption point which is lower, equal to or higher than the actual fuel consumption rate in order to charge said battery device (page 12, paragraphs 184 – 187 & Fig. 32);
- a means to reduce target fuel consumption rate as the storage amount of the battery device increases (page 11, paragraph 171).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al. (2002/0,062,183) in view of Taniguchi et al. (5,846,155), further in view of Coates et al. (6,462,551). Yamaguchi discloses a control system for a hybrid vehicle, as described above, which includes a planetary gear set as a power transmission device. However, the components are not arranged as in the current application. Taniguchi, however, discloses a vehicular drive unit comprising:

- a sun gear connected to an engine (Fig. 12);
- a carrier connected to a motor generator (Fig. 12).

Taniguchi does not include an additional motor (traction motor) as part of the invention and uses a ring gear to connect to a CVT input shaft. Coates, however, discloses a method to ensure full functionality of battery pack in which is described a vehicle which comprises:

- a traction motor connected to a ring gear (column 1, lines 45 and 46).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to combine the control system of Yamaguchi with the planetary gearing

system of Taniguchi and Coates in order to provide an efficient splitting and distribution of power from the engine, motor-generator, and traction motor.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John D. Walters whose telephone number is (571) 272-8269. The examiner can normally be reached on Monday - Friday, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Ellis can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John D. Walters
Examiner
Art Unit 3618



CHRISTOPHER P. ELLIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

